

Examination of the Hip

Wash your hands & Introduce the exam to the patient

Positioning and Draping

- Positioning
 - have the patient in the supine position
- Draping
 - uncover both hips so that you can compare each side
 - remember to use draping to cover the patient's groin

Inspection

- Look for:
 - masses, scars, and lesions (trauma)
 - atrophy/hypertrophy
 - erythema/discolouration
 - swelling
 - bony alignment
 - symmetry
 - muscle bulk at the knee & hip
- NB -the hip is a deep joint. Therefore, you cannot view the joint specifically.
- Measurement of leg lengths
 - true leg length -the distance from the Anterior Superior Iliac Spine (ASIS) to the medial malleolus
 - apparent leg length -the distance from the umbilicus to the medial malleolus
- Detection of a flexion contracture
 - place your hand under the patient's back
 - eliminate lumbar lordosis by flexing the contralateral hip
 - look at the ipsilateral hip and leg to see if it is elevated (indicating the presence of a flexion contracture)

Palpation

- Palpation of landmarks
 - while supine –palpate the ASIS
 - while in lateral decubitus –palpate the greater trochanter & trochanteric bursa
 - while prone –palpate the Posterior Superior Iliac Spine (PSIS)

- NB -palpation of the pubic symphysis & ischial tuberosities are not usually performed ASCM I

Special maneuvers

- Range of motion (ROM)
 - Active
 - get the patient to flex their hip and observe ROM

 - Passive
 - Internal and External rotation
 - bring the knee to 90°
 - rotate the lower leg so that the sole of the patient's foot points inwards (ie) external rotation of the hip
 - rotate the lower leg so that the sole of the patient's foot points outwards (ie) internal rotation of the hip

 - NB: -hip rotation occurs with respect to the head of the femur inside the acetabulum of the pelvis

 - Abduction
 - place your hand on the patient's contralateral ASIS
 - abduct their leg until the ASIS shifts

 - Adduction
 - place your hand on the patient's ipsilateral ASIS
 - adduct their leg until the ASIS shifts

- Extension
 - have the patient roll onto their side
 - the neutral position of the hip joint ROM can be found by landmarking from the ASIS and the PSIS
 - extend the hip fully

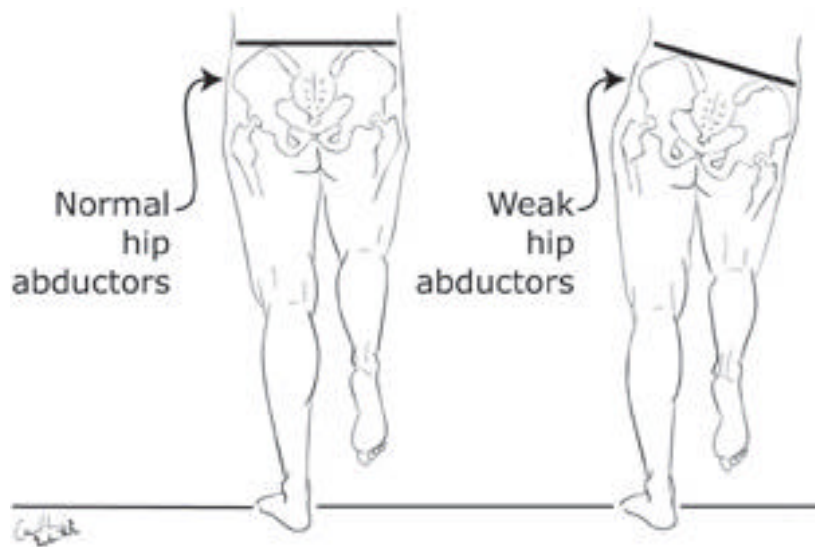
**Table 1:
Normal Range of Motion of the hip joint**

<i>Motion</i>	<i>Normal Range</i>
Flexion	~135°
Extension	~25°
Internal Rotation	~35°
External Rotation	~45°
Abduction	~45°
Adduction	~25°

- **Observation of standing and walking**
 - Gait
 - Antalgic
 - in order to avoid pain during weight bearing, the time spent in the stance phase by the injured limb is minimized
 - The Trendelenburg gait
 - the dropping of the pelvis on the unaffected side of the body at the moment of heel-strike on the affected side (the “Model Walk”)
 - Trendelenburg’s sign for hip abductor function (see Figure 1)
 - this test is used to detect weakness in the abductors of the hip
 - the patient is asked to stand facing the clinician with their hands in clinician’s hands

- the patient is then instructed to stand on one leg with the other hip flexed to 90°
- if abductors of the hip are:
 - normal -the contralateral buttocks remains level
 - weak -the abductors cannot fully compensate and the contralateral buttocks falls (Trendelenberg's sign)

**Figure 1:
Trendelenberg's sign**



© Camillia Matuk